

GP-303149

TORQUE COMPENSATION METHOD FOR
CONTROLLING A DIRECT-INJECTION ENGINE
DURING REGENERATION OF A LEAN NO_x TRAP

ABSTRACT OF THE DISCLOSURE

A torque compensation method for controlling a direct-injection gasoline engine during regeneration of a lean NO_x trap disposed in an exhaust path of the engine determines a desired torque in accordance with driver demands, cruise control settings or idle control. An estimate of torque loss attributable to stratified to homogeneous transitioning to effect the regeneration is determined and a compensating control torque to the engine is provided in an amount sufficient to compensate for the estimated decrease in engine torque to thereby maintain the desired torque level during the lean NO_x trap regeneration.